

## **REMARKS**

Entry of this Amendment is proper under 37 C.F.R. § 1.111. Reconsideration of the claims in view of the above amendments and following remarks is respectfully requested.

### **I. Status of the Claims**

Claims 1-12 and 14 stand canceled. Claims 13 and 15-35 stand rejected. After entry of the above amendments, claims 13, 21-23, 26-27, and 34-35 are amended, and claims 13 and 15-35 remain pending.

The claim amendments are supported, for example, in at least the original claims and the Specification at page 7, lines 6-13 and page 8, lines 5-14. Thus, no prohibited new matter is believed to have been introduced. The amendments have been made without prejudice to or disclaimer of the cancelled subject matter. Applicants reserve the right to file a divisional or continuation on any subject matter cancelled by way of amendment.

### **II. Foreign Priority Documents**

Applicants note with appreciation, the acknowledgement of the claim for foreign priority under 35 U.S.C. § 119 (a)-(d) and receipt of the priority document from the International Bureau.

### **III. Withdrawn Rejections**

Applicants note with appreciation that the 35 U.S.C. § 103 rejection over *Suzuki* has been withdrawn.

### **IV. Rejections Under 35 U.S.C. § 112**

Claims 13 and 15-35 stand rejected under 35 U.S.C. § 112, first and second paragraph, as allegedly indefinite and non-enabling. The claims are amended to further prosecution without admitting to the merits of the rejection. The rejection is mooted by the amendments.

**V. Rejections of the Claims Under 35 U.S.C. § 103(a)**

**A) Alleged obviousness over Liu in view of Tarkmishvili**

Claims 13, 15-16, 18-30, and 32-35 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over CN 1237624 to Liu (hereafter "*Liu*") in view of Tarkmishvili et al., Novel Foaming Agent, Khlebopekarnaya i Konditerskaya Promyshlennost (1972) (hereafter "*Tarkmishvili*"). The Office alleges that *Liu* teaches a drink comprising carbon dioxide, foaming agent and tea leaf extract. The Office acknowledges that *Liu* fails to disclose specific characteristics of the foam-holding properties as recited in claim 13. However, the Office alleges that it would have been obvious from the disclosure in *Tarkmishvili* to use tea extract as a foam forming and foam holding agent, and that the recited specific foam-holding properties would be inherent. The Office also acknowledges that *Liu* and *Tarkmishvili* both fail to explicitly disclose the soluble solid content of the tea extract relative to the total volume of the drink as recited in claims 13, 23, and 27. But, the Office alleges it would have been obvious to vary the amount of tea leaf extract depending on the desired color, taste, and amount of foam.

Applicants traverse. The alleged obviousness rejection is improper for at least the following reasons:

- 1) the Office uses impermissible hindsight to combine *Liu* and *Tarkmishvili*;
- 2) *Liu* teaches away from the proposed modification;
- 3) the Office impermissibly relied on inherency in an obviousness rejection; and
- 4) no reason is provided for why optimization of the amount of soluble solid content of tea extract in *Liu* leads to an amount within the claimed range.

- 1) The Office has impermissibly relied on Applicants' disclosure as a roadmap to piece together the elements of the claim from the prior art.

It is impermissible to first ascertain factually what the inventor did, and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct the invention from such prior art. *In re Shuman*, 227 USPQ 54, 57 (CCPA 1966). *Panduit Corp. v. Dennison Mfg. Co.*, 227 USPQ 337, 343 (Fed. Cir. 1985).

Using the claimed invention as a roadmap to find its prior art components is impermissible hindsight reasoning. *Princeton Biochemicals Inc. v. Beckman Coulter Inc.*, 75 U.S.P.Q.2d 1051, 1054 (Fed. Cir. 2005). Additionally, independently selecting and choosing elements of the claims is impermissible in assessing obviousness. 35 U.S.C. § 103 requires assessment of the invention as a whole. *Ruiz v. A.B. Chance Co.*, 69 U.S.P.Q.2d 1686, 1690 (Fed. Cir. 2004). The “as a whole” assessment of the invention requires a showing that one of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would have selected the various elements in the prior art, and combined them in the claimed manner. *See, e.g. Princeton Biochemicals Inc. v. Beckman Coulter Inc.*, 75 U.S.P.Q.2d 1051, 1054 (Fed. Cir. 2005). The Office fails to provide any rationale for why one of ordinary skill in the art without using the claims as a roadmap, would use tea leaf extract to increase the foam holding property of a foam producing drink.

One of ordinary skill in the art, without the knowledge of the claimed invention, would not have created a foam producing drink as claimed for at least the following reasons:

- a) *Liu* fails to recognize that tea extract is a foam holding agent, and
- b) *Tarkmishvili* only discloses that tea extract can be a substitute for egg whites as the foaming agent in forming air-filled foam not CO<sub>2</sub>-filled foam.

- a) *Liu* fails to recognize that tea extract is a foam holding agent.

*Liu* is silent to any foam retention for the cocktail tea. The object of *Liu* is to create a tea having a unique flavor by mixing wine, liquor, fruit juice, sugar, sweetener, potassium sorbate, food flavoring substances, vitamin C, carbon dioxide, foaming agents, polyphosphates, colorants, and thickening agents. *See, e.g.*, the last paragraph of page 3 and the first paragraph of page 4 of the English translation of *Liu*. *Liu* discloses forming bottled tea sodas with bubbles or a tea beverage. *See, e.g.*, the second paragraph of page 4 of the English translation of *Liu*. Sodas require little foam retention, and foam holding properties are not of concern, because consumers expect sodas to foam when poured and to disappear quickly thereafter. This is in contrast to alcoholic drinks like beer, in which consumers expect strong foam holding properties to form a satisfactory head layer. At least one of the objects of Applicants’ foam producing drink is to form a drink with strong foam holding properties that resemble the head on beer. Because *Liu* is

concerned with forming tea sodas with bubbles and not foam retaining beverages resembling beer, there would be no reason absent using Applicant's claims as a roadmap, to add a foam-holding agent or to use the tea extract as a foam-holding agent in *Liu*. This would not have been a property sought, and thus the reagent would not have been considered for use.

b) *Tarknishvili* does not disclose that tea extract can be a substitute for a foam holding agent in forming CO<sub>2</sub>-filled foam.

The Office alleges that it is well known that egg whites are used in confectionaries, such as soufflé, in foam formation and foam holding properties. Although this may be true, the process and food chemistry of foam formation in air-filled foams created for confectionaries is very different from the process and food chemistry of forming CO<sub>2</sub>-filled foam in carbonated beverages similar to beer. Different properties of materials are needed to provide foam holding properties for foams created by these differing processes. Further, air and CO<sub>2</sub> contain different properties including densities that cause the foams to differ in their retention properties. Therefore, without evidence to the contrary, the fact that a tea extract can be substituted for egg whites in the production of confectionaries, such as soufflé, does not provide a sufficient teaching to one of ordinary skill in the art that tea extract would act as a foam-holding agent for CO<sub>2</sub>-filled foam in carbonated beverages similar to beer. Thus, there is no reason, absent using Applicants' claims as a roadmap, to use tea extract as a foam-holding agent for CO<sub>2</sub>-filled foam in carbonated beverages similar to beer.

For at least the reasons presented above, the Office has impermissibly relied solely on Applicants' disclosure and used Applicants' claims as a roadmap for piecing together the art required to meet the elements of the claims. One of ordinary skill in the art, without the knowledge of the claimed invention, would not have created a foam producing drink as claimed, and thus the rejection is improper and should be withdrawn.

2) *Liu* teaches away from using a foam holding agent.

It is not obvious to modify a prior art reference in a manner that renders that prior art unsatisfactory for its intended purpose, and it is improper to rely on such a proposed modification in forming a *prima facie* case of obviousness. *In re Gordon*, 733 F.2d 900, 221

U.S.P.Q. 1125 (Fed. Cir. 1984). *See* MPEP § 2143.01 (V). *Liu* desires formation of tea sodas and not beer-like beverages. *See, e.g.*, the second paragraph of page 4 of the English translation of *Liu*. Sodas require little foam retention, because consumers expect sodas to foam when poured and then to disappear quickly. This is in contrast to alcoholic drinks like beer, in which consumers expect strong foam holding properties to form a satisfactory head layer. The addition of a foam-holding agent or adding the tea extract to the tea soda in an amount that would cause the tea extract to act as a foam-holding agent, would render *Liu* unsatisfactory for its intended purpose as a tea soda. Therefore, the rejection is improper, and Applicants request withdrawal.

3) The Office improperly relied on inherency to meet the specifically claimed characteristics of the foam-holding properties.

The Office alleges that the specifically claimed characteristics of the foam-holding properties would be an inherent result. *See, e.g.*, p. 5, ll. 3-15 of the Office Action. Inherency is immaterial in an obviousness analysis if the record establishes that one of ordinary skill in the art would not appreciate or recognize the inherent feature. *In re Shetty*, 195 U.S.P.Q. 753 (C.C.P.A. 1977). For at least the reasons provided above, one of ordinary skill in the art would not have appreciated the ability of tea extract to act as a foam holding agent for CO<sub>2</sub>-filled foam in beverages. Also, the Office has provided no evidence that tea extract added to every foam-producing drink at every possible concentration would have been expected to act as a foam holding agent. Without recognizing the foam-holding properties of tea extract, one of ordinary skill in the art would have had no reason to optimize for that property, and thus any specific characteristic of that property cannot be inherent. Any foam-producing drink containing the specific characteristics of foam retention claimed from the teachings of *Liu* and *Tarkmishvili* would be by accident. The characteristics would not be necessarily present, as required in a finding of inherency. Further, *Liu* describes forming tea sodas, which would desire low or no foam retention, and thus one of ordinary skill in the art would understand that the tea extract in *Liu* is added to the cocktail tea in a manner in which the tea extract is not a foam-holding agent. Therefore, the specific characteristics of foam retention recited in the claims would not be inherent from the disclosures of *Liu* or *Tarkmishvili*, at least because inherency is incompatible

with an obvious rejection. Accordingly, the rejection is improper, and Applicants respectfully request withdrawal.

4) The Office fails to articulate a reason *why* optimization of the amount of tea extract in *Liu* leads to an amount within the claimed range.

In addition to the reference's failure to provide the foam holding properties recited in the claims, the Office fails to articulate a reason why optimization of the amount of tea extract in *Liu* leads to an amount within the range recited in claims 13, 23, and 27. The Office admits that *Liu* and *Tarkmishvili* are silent to the amount of the soluble solid content of the tea extract in the drink. Yet, the Office asserts it would have been obvious to add tea extract in an amount within the range recited in the claims. The Office states that the recited amount would be found through optimization of the color, taste and foaming properties of the drink.

*Liu* suggests to one of ordinary skill in the art the recognized problem of formulating a drink that refreshes, removes fatigue, and whets the appetite. Starting with the problem established by *Liu*, it might be obvious to try different amounts and types of ingredients to produce a drink that refreshes, removes fatigue, and whets the appetite. However, the Office provides no evidence that the optimal amount of soluble solid content of the tea extract for refreshing, removing fatigue, and whetting the appetite is an amount between 0.01% and 3% relative to the total volume of the drink. The Office fails to establish the crucial link of optimization to the particularly claimed amount and a reasonable expectation of success of said claimed result. Therefore, the Office fails to provide factual evidence to support the conclusion that a foam-producing drink containing 0.01% to 3% soluble solid content of tea leaf extract is obvious.

The Office has further stated that the recited amount of the soluble solid content of the tea leaf extract would be found through optimization of the foaming properties of the drink. Applicants point out however that there must be some recognition of the result in order to adjust and optimize the effective variable. As explained above, *Liu* fails to recognize that tea leaf extract affects the foaming properties of the drink, so there would be no reason for *Liu* to optimize the amount of tea leaf extract in an attempt to achieve desired foam properties. Further, *Tarkmishvili* only discloses that tea extract can be substituted for egg whites in the formation of

air-filled foam for confectionaries. *Tarkmishvili* provides no suggestion that changing the amount of tea extract in a carbonated tea beverage would affect the foaming properties of the drink. Finally, even if one of ordinary skill in the art recognized from the teachings of *Liu* and *Tarkmishvili* that the amount of tea extract affects the foam properties of the beverage, they would not have been motivated to increase the foam holding properties of the beverage of *Liu*. *Liu* discloses creation of tea sodas, and sodas have very little foam holding properties, because consumers expect the foam on sodas to disappear quickly after pouring.

Dependent claims 15-22, 24-25, and 27-35 which depend from claims 13, 23, and 26, respectively, are also not obvious for at least reasons similar to those for claims 13, 23, and 26. For at least these reasons, Applicants respectfully request withdrawal of the rejection.

B) Alleged obviousness over Liu in view of Gong Yungao

Claims 17 and 31 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Liu* in view of CN 1237624 to Gong Yungao (hereafter "*Gong Yungao*"). The Office appears to rely on *Gong Yungao* solely for modifying *Liu* to include a hop extract. *Gong Yungao* fails to cure the deficiencies of *Liu* with regard to independent claims 13, 23, and 26. Therefore, for at least the reasons provided above, no *prima facie* case of obviousness has been adduced, and the rejection should be withdrawn.

### CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited. In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully requested to telephone the undersigned so that prosecution of the application may be expedited.

If any fees are required, the Office is asked to charge Deposit Account No. 50-0573. The Office can credit any overpayments to the Account.

Respectfully submitted,  
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